

Notice of Allowability

Application No.

09/309,844

Examiner

Jeffrey J. Restifo

Applicant(s)

PACK, WILLIAM

Art Unit

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/11/04.
2. ☒ The allowed claim(s) is/are 2-9, 11-17, 19-25 and 28.
3. ☒ The drawings filed on 11 May 1999 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

JEFF J. RESTIFO
PATENT EXAMINER

[Signature]
4/29/04

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John Cheek on 4/29/04.

The application has been amended as follows:

In the claims:

A new set of amended claims has been submitted to replace the original claims 1-28.

Claims 1, 10, 18, 26, and 28 remain canceled.

Claims 3-9, 12-17, 20-23, 25, and 28 are have not been amended.

Claims 2, 11, 19, and 24 have been amended with brackets identifying deleted language and underlining to indicate inserted language.

The newly submitted claims are on the following pages:

1. CANCELED.

2. (Amended) A work machine, comprising:

a main frame;

an engine assembly mounted on said main frame;

a radiator assembly mounted on said main frame, said radiator assembly operable to cool said engine assembly; and

a transmission assembly (i) mechanically coupled to said engine assembly and (ii) mounted on said main frame such that said transmission assembly is interposed between said engine assembly and said radiator assembly;

said main frame has a longitudinal axis;

said radiator assembly includes a [as] cooling core having [an upper edge] a fluid inflow surface and a fluid outflow surface;

said cooling core is positioned relative to said longitudinal axis such that (i) [a linear extension of said upper edge defines a line L_1 ,] at least one of said fluid inflow surface and said fluid outflow surface extends substantially parallel to a first line (ii) a second line [L_2 is defined by a lined which] intersects said longitudinal axis so as to define a 90° angle α therebetween, and (iii) an angle σ is defined between said first line [L_1] and said second line [L_2], and (iv) $40.0^\circ \leq \sigma \leq 95.0^\circ$.

3. The work machine of claim 2, further comprising a cab assembly mounted on the main frame, wherein said cab assembly is interposed between said engine assembly and said radiator assembly.

4. The work machine of claim 2, further comprising:

a work implement coupled to said main frame; and

said radiator assembly is interposed between said work implement and said engine assembly.

5. The work machine of claim ^{4,} ~~2,~~ wherein:

said work implement includes a truck bed.

6. The work machine of claim 2, wherein:

said radiator assembly ~~includes (i)~~ ^{includes} a radiator fan ~~[and (ii) a cooling core,]~~ and said cooling core is interposed between said radiator fan and said engine assembly.

7. The work machine of claim 6, further comprising an engine fan mounted

on said main frame, wherein:

said engine assembly is interposed between the engine fan and said radiator fan.

8. The work machine of claim 2, further comprising:

a conduit having (i) a first end attached to said engine assembly, (ii) a second end attached to said radiator assembly, and (iii) said engine assembly is in fluid communication with said radiator assembly; and

a cooling fluid which is advanced from said radiator assembly to said engine assembly through said conduit.

9. The work machine of claim 2, further comprising:

a ground engaging mechanism mechanically coupled to said engine assembly; and

wherein actuation of said ground engaging mechanism by said engine causes said work machine to be advanced over a ground segment.

10. CANCELED

11. (Amended) A work machine, comprising:

a main frame;

an engine assembly mounted on said main frame;

a radiator assembly mounted on said main frame, said radiator assembly operable to cool said engine assembly; and

a cab assembly mounted on said main frame such that said cab assembly is interposed between said engine assembly and said radiator assembly;

said main frame having a longitudinal axis;

said radiator assembly includes a cooling core having [an upper edge] a fluid inflow surface and a fluid outflow surface; and

said cooling core is positioned relative to said longitudinal axis such that (i)[a linear extension of said upper edge defines a line L_1] at least one of said fluid inflow surface and said fluid outflow surface extends substantially parallel to a first line, (ii) a second line [L_2 is defined by a lined which] intersects said longitudinal axis so as to define a 90° angle α therebetween, and (iii) an angle σ is defined between said first line [L_1] and said second line [L_2], and (iv) $40.0^\circ \leq \sigma \leq 95.0^\circ$.

12. The work machine of claim 11, further comprising:
a work implement coupled to said main frame; and
said radiator assembly is interposed between said work implement and said cab assembly.

13. The work machine of claim ~~2, wherein:~~ ^{11, wherein:}

said work implement includes a truck bed.

14. The work machine of claim 11, wherein:

said radiator assembly includes ~~(i) a radiator fan~~ ^{(i) a radiator fan} ~~and (ii) a cooling core;~~ and
said cooling core is interposed between said radiator fan and said cab assembly.

15. The work machine of claim ~~6,~~ ¹⁴ further comprising an engine fan mounted on said main frame, wherein:

said engine assembly is interposed between the engine fan and said radiator fan.

16. The work machine of claim 11, further comprising:

a conduit having (i) a first end attached to said engine assembly, (ii) a second end attached to said radiator assembly, and (iii) said engine assembly is in fluid communication with said radiator assembly; and

a cooling fluid which is advanced from said radiator assembly to said engine assembly through said conduit.

17. The work machine of claim 11, further comprising:

a ground engaging mechanism mechanically coupled to said engine assembly; and

wherein actuation of said ground engaging mechanism by said engine causes said work machine to be advanced over a ground segment.

18. CANCELED

19. (Amended) A work machine, comprising:

a frame having a longitudinal axis;

an operator cab mounted on said frame;

an engine enclosure mounted on said frame forward of said operator cab[, said engine enclosure being devoid of a radiator assembly];

an engine assembly mounted on said frame and located within said engine enclosure, said engine assembly including an engine and an engine fan directing cooling air over said engine, said engine enclosure being devoid of a radiator assembly operable to cool said engine assembly; and

a radiator assembly mounted to said frame rearward of said operator cab, said radiator assembly operable to cool said engine assembly, said radiator assembly including a cooling core having [an upper edge] a fluid inflow surface and a fluid outflow surface, said cooling core being positioned such that [a linear extension of said upper edge extends along] at least one of said fluid inflow surface and said fluid outflow surface extends substantially parallel to a line that intersects the longitudinal axis of said frame at an angle other than 90°.

20. The work machine of claim 19 wherein said radiator assembly includes a radiator fan positioned rearward of said cooling core.

21. The work machine of claim 20 wherein said radiator fan is operable to draw ~~[drawing]~~ air through said radiator assembly and away from said operator cab.

22. The work machine of claim 19, further comprising:

a transmission assembly mounted on said frame and operably connected with said engine assembly, said transmission assembly being located between said engine assembly and said radiator assembly.

23. The work machine of claim 19 wherein said engine enclosure includes an upper surface extending downwardly and forwardly from said operator cab, said engine enclosure upper surface terminating at a forward end positioned at a first distance above said frame, and wherein the upper edge of said cooling core is positioned a second distance above said frame, said second distance being greater than said first distance.

24. (Amended) A work machine, comprising:

a frame;

an operator cab mounted on said frame;

an engine enclosure mounted on said frame forward of said operator cab, said engine enclosure including an upper surface extending downwardly and

forwardly from said operator cab, said engine enclosure upper surface terminating at a forward end positioned at a first distance above said frame;

an engine assembly mounted on said frame and located within said engine enclosure; and

a radiator assembly mounted to said frame rearward of said operator cab, said assembly operable to cool said engine assembly and including a cooling core having an upper edge positioned a second distance above said frame, said second distance being greater than said first distance, said cooling core having a fluid inflow surface and a fluid outflow surface and being positioned such that at least one of said fluid inflow surface and said fluid outflow surface extends substantially parallel to a line that intersects a longitudinal axis of said frame at an angle other than 90°.

25. The work machine of claim 24 wherein said engine assembly includes an engine and an engine fan directing cooling air over said engine.

26. CANCELED

27. CANCELED

28. The work machine of claim 24 further comprising:

a transmission assembly mounted on said frame and operably connected with said engine assembly, said transmission assembly being located between said engine assembly and said radiator assembly.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey J. Restifo whose telephone number is (703) 305-0579. The examiner can normally be reached on M-F (10:00-6:00), alternate Friday off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Johnson can be reached on (703) 308-0885. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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4/20/04